ROAD TRANSPORT'S NOISE IMPACT ON POPULATION HEALTH IN A RISKY ENVIRONMENTAL AREA IN THE REPUBLIC OF BULGARIA

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Background and aims: Noise, as a factor in the contemporary urban environment, is characterized by multifaceted influence, equivalent on negative effect of the rest environmental contaminants.
The largest share of noise has the road transport. Constant increasing traffic from vehicles and mistakes in urban planning create the unfavourable acoustic environment in urban settlements.
The combined impact of environmental components, especially in ecologically vulnerable areas, such as area of the town of Kardzhali (with mining processing and metallurgical industry) increases the morbidity of the exposed population.
The purpose of this study was to determine the impact of transport noise on human health in the town of Kardzhali the period 2001-2010.
Methods: Analyzed were the data from the monitoring of street noise in the town for the period 2001-2010 and morbidity of the population (0-17 and over 18 years old) from Municipality of Kardzhali in the same period in the main classes of diseases ICD provoked by noise pollution, followed in dynamics.
For statistical processing of data is using nonparametric correlation of Spearman.
Results: Adverse trends in factors influencing the acoustic environment in the town are confirmed by the noise characteristics for the past ten years. They show sustained increasing of noise pollution, and prevailing are rates in the range 68-72 dB (A), at the limit rate of 55-60 dB (A).
The data analysis shows a large significant correlation (• • 0.01) for both age groups between the average level of noise and diseases of the nervous system. Among the adult population with such a correlation are diseases of the ear and mastoid process.
Conclusions: The assessment is a base for implementation of mandatory measures related to the optimization of the acoustic environment to improve the health of the population in the area, exposed parallel and to air pollution.